

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Hwang *et al.*

Application No.: Unassigned

Filed: Herewith

Title: VCSEL With Ion-Implanted Current-
Confinement Structure

§ Group Art Unit: Unassigned
§
§ Examiner: Unassigned
§
§ Confirmation No.: Unassigned
§
§ Atty. Docket No. PAT034US

11011 U.S. PTO
09/993239
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#4
D. Scott
5-4-02

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Washington, D.C. 20231

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Yvonne R. Simera
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INFORMATION DISCLOSURE STATEMENT

In compliance with the information disclosure statement requirements of 37 C.F.R. § 1.56
and 1.97, Applicant hereby submits the attached references related to the above-identified
application.

Respectfully submitted,

Date: 11-13-01

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Form PTO-1449 Department of Commerce Patent and Trademark Office INFORMATION DISCLOSURE STATEMENT IN AN APPLICATION (Use several sheets if necessary)		Docket No. PAT034US		Serial No. Unassigned		
		Applicants Anselm et al.				
		Filing Date Herewith		Group Art Unit Unassigned		
U.S. PATENT DOCUMENTS						
*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	4,949,350	08/14/99	Jewell et al.			
	5,031,187	07/09/91	Orenstein et al.			
	5,115,442	05/19/92	Lee et al.			
	5,193,098	03/09/93	Welch et al.			
	5,219,785	06/15/93	Welch et al.			
	5,256,596	10/26/93	Ackley et al.			
FOREIGN PATENT DOCUMENTS						
	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	<u>TRANSLATION</u> YES NO
OTHER (Including Author, Title, Date, Pertinent Pages, Etc.)						
	Qian, Y. et al., "Long Wavelength (1.3 μm) Vertical-Cavity Surface-Emitting Lasers With a Wafer-Bonded Mirror and an Oxygen-Implanted Confinement Region," <i>Appl. Phys. Lett.</i> , Vol. 71, No. 1, (1997), pp. 25-27.					
	Ridgway, M. C., et al., "Single-Step Implant Isolation of p^+ -InP with 5-MeV O Ions," <i>Appl. Phys. Lett.</i> , Vol. 60, No. 24, (1992), pp. 3010-3012.					
	Huffaker, D. L. et al., "Native-Oxide Defined Ring Contact for Low Threshold Vertical-Cavity Lasers," <i>Appl. Phys. Lett.</i> , Vol. 65, No. 1, (1994), pp. 97-99.					
	Lee, Y. H. et al., "Top-Surface-Emitting GaAs Four-Quantum-Well Lasers Emitting at 0.85 μm ," <i>Electronics Letters</i> , Vol. 26, No. 11, (1990), pp.710-711.					
EXAMINER				DATE CONSIDERED		
EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.						

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		Applicant Anselm <i>et al.</i>				
		Filing Date Herewith		Group Art Unit Unassigned		
U.S. PATENT DOCUMENTS						
*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	5,328,854	07/12/94	Vakhshoori <i>et al.</i>			
	5,594,751	01/14/97	Scott, Jeffrey W.			
	5,764,674	06/09/98	Hibbs-Brenner <i>et al.</i>			
	5,893,722	04/13/99	Hibbs-Brenner <i>et al.</i>			
	6,044,100	03/28/00	Hobson <i>et al.</i>			
	6,169,756 B1	01/02/01	Chirovsky <i>et al.</i>			
FOREIGN PATENT DOCUMENTS						
	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	<u>TRANSLATION</u> YES NO
OTHER (Including Author, Title, Date, Pertinent Pages, Etc.)						
	Choquette, K. D., <i>et al.</i> , "Low Threshold Voltage Vertical-Cavity Lasers Fabricated by Selective Oxidation," <i>Electronics Letters</i> , Vol. 30, No. 24, (1994), pp. 2043-2044.					
	Deng, H. and Deppe, D. G. , "Oxide-Confined Vertical-Cavity Lser With Additional Etched Void Confinement," <i>Electronics Letters</i> , Vol. 32, No. 10, (1996), pp. 900-901.					
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